

REMARKS

Claims 1-27 remain in the application, with claims 1-13 being withdrawn from consideration. Claims 14, 20, and 27 are in independent form. Claims 14, 19, 20, and 27 have been amended by the present amendment. The amendments have been made to clarify that the inventive additive of the subject invention is a mixture of polyethylene wax and PTFE. Support for this amendment can be found throughout the specification including paragraphs 1, 5, 14, 16, and the examples.

The Examiner rejected claims 14-27 under 35 U.S.C. § 103(a) as being unpatentable over Wada et al. (5,100,922) in view of Olstowski et al. (3,753,933) and Smits et al. (5,250,579). The Examiner admits that Wada et al. merely discloses formation of integral-skin polyurethane foam articles and provides no disclosure of the inventive additives of the present invention. The Examiner then points to Olstowski et al. as disclosing use of polyethylene powders and fluorinated polymers in polyurethane foams. Finally, the Examiner points to Smits et al. as disclosing employment of PTFE in polyurethane foams. The Examiner then suggests “Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the additive polyethylene and PTFE polymer powders disclosed in Olstowski et al. and Smits et al. in the preparations of Wada et al. for the purpose of imparting their processing and property modifying effects in order to arrive at the products and processes of applicants’ claims with the expectation of success in the absence of a showing of new or unexpected results.”

Obviousness cannot be established by combining the teaching of the prior art to produce the claimed invention absent some teaching, suggestion, or motivation that would lead one of ordinary skill in the art to combine the references. *In re Sang Su Lee*, 227 F.3d 1338 (Fed. Cir. 2002), citing *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000); *In re Napier*, 34 U.S.P.Q. 2d 1782 (Fed. Cir. 1995). Elements of separate prior patents cannot be combined when there is no suggestion of such combination anywhere in those patents. *Panduit Corp. v. Dennison Mfg. Co.*, 1 USPQ 2^d 1593 (Fed. Cir. 1987). Virtually all inventions are necessarily combinations of old elements and, thus the notion that combination claims can be declared invalid merely upon the finding of similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under section 103. *Id.* The U.S. Court of Appeals for the Federal Circuit recently made the following statements in *Yamanouchi Pharmaceutical Co., Ltd. v. Danbury Pharmacal, Inc.* 56 USPQ2d 1641, 1644 (Fed. Cir. 2000) concerning the combination of old elements:

"virtually all [inventions] are combinations of old elements . Therefore, an Examiner [or accused infringer] may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate the patentability very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner [or accused infringer] to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention...To counter this potential weakness in the obvious construction, the

suggestion to combine requirements stands as a critical safe guard against hindsight analysis and rote application of the legal test for obviousness." [Emphasis added]

Further, when claimed subject matter has been rejected as being obvious in view of a combination of prior art references a proper analysis under section 103 requires a consideration of two factors: [1] Whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and [2] whether the prior art would also have revealed that, in so making or carry out , those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991), *In re Dow Chemical Company*, 5 USPQ2d 1529 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success must be found in the prior art not in the applicant's disclosure. *Id.*

When analyzing the issue of obviousness, the differences between the prior art and the claims that issue must be ascertained. *Graham v. John Deer Co.* 148 USPQ 459, 467 (Sup.Ct.1996). In conjunction with the first three "Graham factors" personal of the US Patent and Trademark Office should: (1) Determine the "scope and content of the prior art"; (2) Ascertain the "differences between the prior art and the claims that issue"; and (3) Determine the "level of ordinary skill in the art". Official Gazette, 1196 OG 38, March 11, 1997. With respect to the scope and content of the prior art each reference must qualify as prior art under 35 U.S.C. § 102, and should be in the field of the applicant's endeavor or be reasonably pertinent to the particular problem with which the inventor was concerned. *Id.* The mere fact that the prior

art can be modified does not make the modification obvious unless prior art taught or suggested the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Obviousness may not be established by hindsight. *Kahn v. General Motors Corp.*, 45 USPQ2d 1608 (Fed. Cir. 1998). Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. *In re ATD Corp v. Lydal, Inc.*, 48 USPQ2d 1321, 1329 (Fed.Cir.1998). Combining prior art references without evidence of a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability-the essence of hindsight. *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999). The prior art must suggest to one of ordinary skill in the art the desirability of the claimed combination. *In re Fromsom v. Advanced Offset Plate Inc.*, 225 USPQ 26, 31 (Fed. Cir. 1985). Good ideas may well appear "obvious" after they have been disclosed after despite having been previously unrecognized. *In re Arkie Lures, Inc. v. Gene Larew Tackle, Inc.* 43 USPQ2d 1294 (Fed. Cir. 1997).

In the present instance the Examiner has utilized Applicants' own invention in an impermissible hindsight manner to gather the cited references. The Examiner has pointed to no teaching, suggestion, or motivation found within the references themselves that would lead one of ordinary skill in the art to combine the references in the manner suggested by the Examiner to produce Applicants' invention.

Primary reference Wada et al. merely discloses one process for forming an integral-skin polyurethane foam. The subject reference does not even discuss abrasion resistance or the utilization of either of the components of Applicants' inventive additive in a foam, as the Examiner admits.

The Olstowski et al. reference is directed toward production of a polyurethane foam by utilizing as a blowing agent a solid particulate substance. Olstowski et al. lists in columns 2 and 3 a wide variety of different suitable particulate solids that might be employed as blowing agents in his inventions. The only commonality between any of the over 20 suggested agents appears to be the fact that they are particulate agents. The suggested compounds range from the following: metallic powders; inorganic compounds including boron nitride powder, and limestone powder; organic compounds including cellulose, wood flour, and rice; and synthetic polymers such as ultrafine polyethylene powders or ultrafine fluorinated polymers. Olstowski et al. suggests that the "blowing" powders can be added to the liquid urethane reactants in an amount of from 1 to 80 wt % of the based on the total weight of the formulation.

Finally, Smits et al. is directed to a process for preparing a polyurethane foam wherein the cell windows in the foam are perforated by presence of a perforating agent. One of the suggested perforating agents is polytetrafluoroethylene (PTFE). In Smits et al. these window perforating substances are utilized to open the foam cells thereby permitting a rigid foam to be formed that has enhanced thermal installation stability. Like Olstowski et al., Smits et al. is not

directed to a integral skin-polyurethane foam like that of the present invention. In addition, neither of them disclose utilizing the additive of Applicants' invention a mixture of polyethylene wax and PTFE. None of the cited references teach that a mixture of polyethylene wax and PTFE can lead to the dramatic abrasion resistance enhancement found in Applicants' invention. The references teach use of one or the other as a blowing agent or a cell opener. Each of the independent claims of the present invention require that the foam be obtained by combining at least an organic polyisocyanate with an isocyanate reactive hydroxyl functional polyol, a urethane promoting catalyst, a blowing agent and a mixture of polyethylene wax and PTFE. None of the cited references either alone or in combination teach such a polyurethane foam reaction system. Furthermore, there is no teaching, suggestion, or motivation for Applicants' invention found in any of the references alone or in combination.

Wada et al. does not even teach Applicants' additive. Olstowski et al. teaches utilization of PTFE as a blowing agent for a polyurethane foam. Smits et al. teaches utilization of PTFE as a cell window opening agent in an polyurethane foam. None of these teach, suggest or disclose a reason for combining a polyethylene wax with PTFE in a polyurethane foam to produce an enhanced abrasion resistant foam composition.

Because none of the cited references alone or in combination disclose nor make obvious subject matter of independent claims 14, 20, and 27 the rejection of these claims and the claims

which depend therefrom under 35 U.S.C. § 103(a) based on the cited references is improper and must be withdrawn.

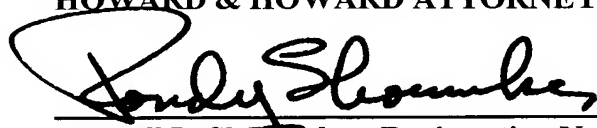
Applicant's attorney respectfully submits that the claims as amended are now in condition for allowance and respectfully requests such allowance.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS

2/3/04

Date



Randall L. Shoemaker, Registration No. 43,118
Howard and Howard Attorneys, P.C.
The Pinehurst Office Center, Suite 101
39400 Woodward Ave.
Bloomfield Hills, MI 48304-5151
(248) 723-0425

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this paper or fee is being deposited with the United States Postal Service as Express Mail, Label No. EV377751335US, postage prepaid, addressed to Commissioner of Patents, Mailstop NON-FEE AMENDMENT, P.O. Box 1450, Alexandria, Virginia 22313-1450, on **February 13, 2004**.

Sandra L. Barry
Sandra L. Barry